

Amendments to the Specification

Please amend the above-identified application, as follows:

[0023] During the course of execution of the parallel or distributed system Node B may lose connectivity to other nodes or may fail itself. This is reflected in Figure 1 as Event 1. The other nodes in the application are eventually notified by the heartbeat system (Group Services) that Node B is not responding (due either to the failure of the node or the failure of connectivity to the node). This causes Nodes A, C, and D to execute the LAPI call LAPI_Purge_totask(B). This causes the state with respect to Node B to be reset by Node A, C, and D and also causes their epoch numbers to be bumped up to 1. This also causes all information or message packets from Node B sent to nodes A, C, or D with the epoch number 1-0 to be discarded by nodes A, C, and D as trickle traffic packets arriving from an instance of B that is no longer a participant in the parallel or distributed application. Nodes A, C and D continue communicating with each other using the new epoch number (which is now 1).

[0028] The present application refers to an indicator which is used to identify an instance of node or network failure as an “epoch number.” However, as used herein and in the appended claims, the term “instance identifier” is used as well. With respect to either phrase, the intent is to employ an indicia associated with a particular failure incident that has two characteristics: (1) unique association with that failure instance over a reasonable period of system operation; and (2) an ability to determine, as between two such specific indicia, which came first in time.

[0029] The interaction of the various subsystems like Group services (for heartbeat function), the parallel or distributed application which is the user of LAPI, the use of the LAPI calls to purge and resume are the key aspects described in this invention. Aspects of LAPI, the parallel or distributed application using LAPI, group services, etc. and their key novelties have been filed for invention protection under previous patents from IBM (Larry please add appropriate references for them).